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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,881

04/13/2007

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EXAMINER

PINKNEY, DAWAYNE

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,881	Applicant(s) NAKAGAWA, AKIO	
	Examiner DAWAYNE A. PINKNEY	Art Unit 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☒ Claim(s) 15 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/21/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 09/21/2006 has been considered by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 5-9, and 11-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Kandel et al. (US 2004/0105075).

Regarding **claim 1**, Kandel discloses, a pupillary reflex checking apparatus comprising:

a reflecting unit operable to form an image of a pupil of a subject's eye on an optical reflecting surface that is disposed in a plane that intersects with a visual axis of the subject (Paragraph 0038, lines 7-13, and 18A and 18B of Fig. 1A); and

a stimulus applying unit operable to apply a stimulus to induce a pupillary reflex in the subject (Paragraph 0038, lines 4-13, Paragraph 0039, lines 1-8, 26A, 26B and 41A, 41B of Figs. 1A, and 1B).

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Regarding **claim 2**, Kandel discloses, the pupillary reflex checking apparatus of claim 1, wherein the stimulus applying unit applies a light stimulus to the subject's eye as the stimulus to induce the pupillary reflex (Paragraph 0038, lines 1-20).

Regarding **claim 3**, Kandel discloses, the pupillary reflex checking apparatus of claim 2, wherein the light stimulus is pulsed light (Paragraph 0038, lines 1-12, and Paragraph 0040, lines 1-5).

Regarding **claim 5**, Kandel discloses, the pupillary reflex checking apparatus of Claim 3 , further comprising an illumination unit operable to irradiate the subject's eye with light that is less intense than the pulsed light irradiated by the stimulus applying unit (Paragraph 0037, lines 1-9, and 40A, 40B of Figs. 1A and 1B).

Regarding **claim 6**, Kandel discloses, the pupillary reflex checking apparatus of claim 5, wherein the reflecting unit is composed of a half-mirror that has, as the optical reflecting surface, a main surface which is a mirror surface (18A and 18B of Fig. 1A).

Regarding **claim 7**, Kandel discloses, a fatigue recovery facilitating apparatus for facilitating recovery from fatigue of a subject by repetition of mydriasis and miosis, the fatigue recovery facilitating apparatus including

a pupillary reflex checking unit for a subject to check his or her own pupillary reflex (Figs. 1A and 1B), wherein the pupillary reflex checking unit includes:

a reflecting subunit operable to form an image of a pupil of a subject's eye on an optical reflecting surface that is disposed in a plane that intersects with a visual axis of the subject (Paragraph 0038, lines 7-13, and 18A, 18B of Fig. 1A); and

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a stimulus applying subunit operable to apply a stimulus to induce a pupillary reflex in the subject (Paragraph 0038, lines 4-13, Paragraph 0039, lines 1-8, 26A, 26B and 41A, 41B of Figs. 1A, and 1B).

Regarding **claim 8**, Kandel discloses, the fatigue recovery facilitating apparatus of claim 7, wherein the stimulus applying subunit of the pupillary reflex checking unit applies a light stimulus to the subject's eye as the stimulus to induce the pupillary reflex (Paragraph 0038, lines 1-20).

Regarding **claim 9**, Kandel discloses, the fatigue recovery facilitating apparatus of claim 8, wherein the light stimulus is pulsed light (Paragraph 0038, lines 1-12, and Paragraph 0040, lines 1-5).

Regarding **claim 11**, Kandel discloses, the fatigue recovery facilitating apparatus of Claim 9, wherein the pupillary reflex checking unit further includes an illumination unit operable to irradiate the subject's eye with light that is less intense than the pulsed light irradiated by the stimulus applying unit (Paragraph 0037, lines 1-9, and 40A, 40B of Figs. 1A and 1B).

Regarding **claim 12**, Kandel discloses, the fatigue recovery facilitating apparatus of claim 9, wherein the reflecting subunit of the pupillary reflex checking unit is composed of a half-mirror that has, as the optical reflecting surface, a main surface which is a mirror surface (18A and 18B of Fig. 1A).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kandel et al. (US 2004/0105075) as applied to claims 3 and 9 above.

Kandel remains as applied to **claims 3 and 9 above**.

Although Kandel does not explicitly disclose the period of the pulsed light is set to be at least as long as a period required for mydriasis and miosis, it would have been obvious to one of ordinary skill in the art at the time the invention was made to set the period of the pulsed light to be at least as long as a period required for mydriasis and miosis because this would provide a pupillary reflex checking apparatus which effectively and accurately diagnoses eye diseases of the examinee being tested by the pupillary reflex checking apparatus.

7. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kandel et al. (US 2004/0105075) as applied to claim 12 above, in view of Fukushima et al. (US 6, 669, 651).

Kandel remains as applied to **claim 12 above**.

Furthermore, Kandel discloses, an ocular lens is disposed in proximity to the eyeball of the subject (16A and 16B of Fig. 1A).

Kandel does not teach an image display subunit is provided on an extension of an imaginary line that connects an eyeball of the subject and the reflecting subunit.

Fukushima teaches, that in a fatigue recovery facilitating apparatus having a pupillary reflex checking unit with a reflecting subunit and a stimulus applying subunit that it would be desirable to include an image display subunit is provided on an extension of an imaginary line that connects an eyeball of the subject and the reflecting subunit (Column 8, lines 6-8, and b of Figs. 1 and 10) for the purpose of effectively testing and evaluating an examinee for disorders (Column 1, lines 10-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the image display subunit as taught by the fatigue recovery facilitating apparatus of Fukushima in the fatigue recovery facilitating apparatus of Kandel since Fukushima teaches it is known to use this feature in a fatigue recovery facilitating apparatus for the purpose of effectively testing and evaluating an examinee for disorders (Column 1, lines 10-14).

Regarding **claim 14**, Kandel and Fukushima disclose the claimed invention except for an optical distance between the ocular lens and the reflecting subunit is substantially 50% of an optical distance between the ocular lens and the image display subunit. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the optical distance between the ocular lens and the reflecting subunit is substantially 50% of an optical distance between the ocular lens and the image display subunit, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Allowable Subject Matter

8. Claims 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: none of the prior art either alone or in combination disclose or teach of the claimed combination of limitations to warrant a rejection under 35 USC 102 or 103. Specifically, in reference to dependent claim 15, none of the prior art either alone or in combination disclose or teach of the claimed fatigue recovery facilitating apparatus specifically including, as the distinguishing feature(s) in combination with the other limitations the claimed "image display subunit includes a film and a light source that irradiates the subject's eye with pulsed light through the film."

10. Specifically, in reference to dependent claim 16, none of the prior art either alone or in combination disclose or teach of the claimed fatigue recovery facilitating apparatus specifically including, as the distinguishing feature(s) in combination with the other limitations the claimed "image display subunit and the lens are one of a plurality of image display subunits and a plurality of lenses, the image display subunits and the lenses being provided with respect to a left eye and a right eye of the subject."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAWAYNE A. PINKNEY whose telephone number is (571)270-1305. The examiner can normally be reached on Monday-Thurs. 8 a.m.- 4:30 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DaWayne A Pinkney/

Examiner, Art Unit 2873

01/28/2008

/Scott J. Sugarman/

Primary Examiner, Art Unit 2873